

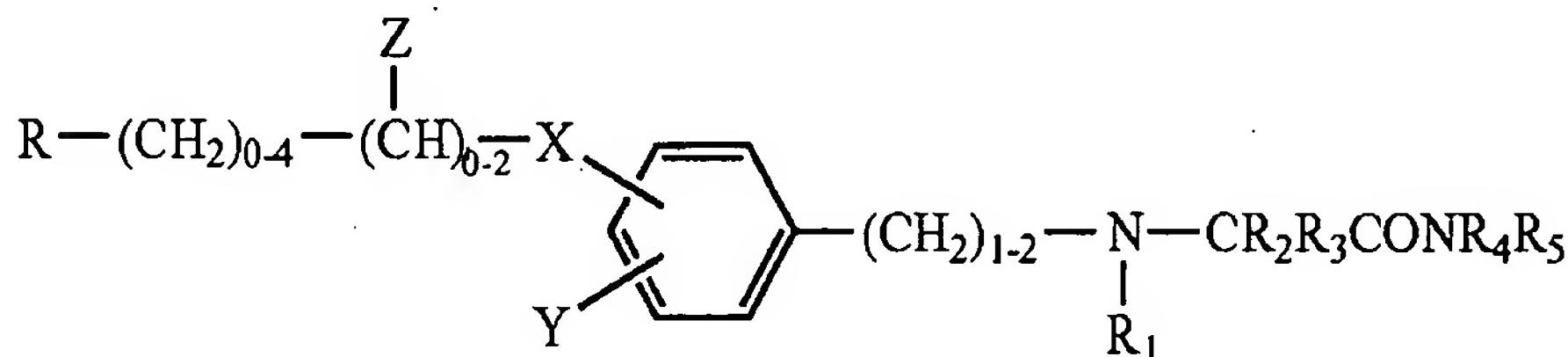
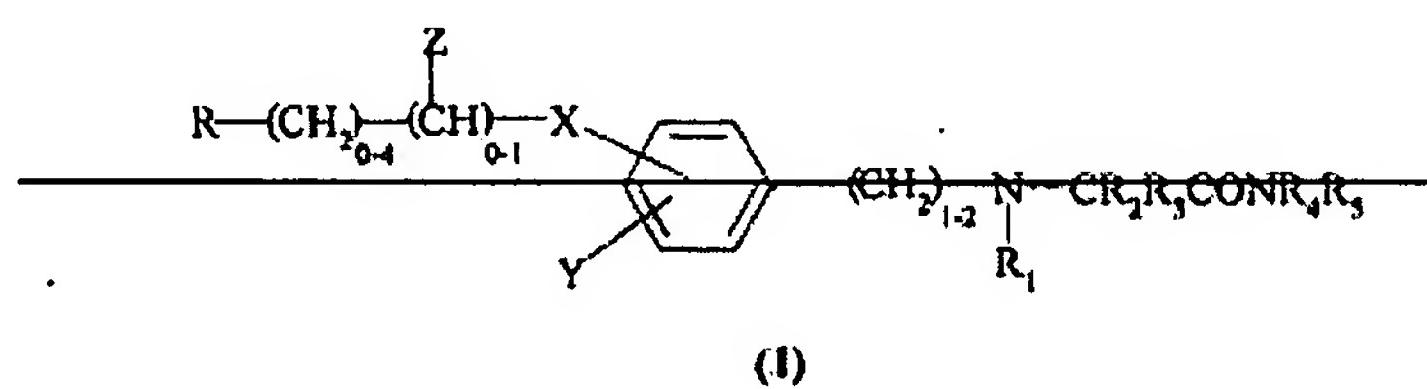
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-8. (cancelled)

9. (withdrawn and currently amended) A method for treating urinary tract infection, comprising administering an effective amount of at least one therapeutic agent which is an alpha-aminoamide compound of formula (I),



wherein:

R is a furyl, thienyl, or pyridyl ring or a phenyl ring, optionally substituted by one or two substituents

independently selected from halogen, hydroxy, cyano, ~~C<sub>1</sub>-C<sub>6</sub>~~ C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl; [\*]

~~R<sub>1</sub>~~ R<sub>1</sub> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl;  
R<sub>2</sub> and R<sub>3</sub> are independently selected from hydrogen;  
C<sub>1</sub>-C<sub>4</sub> alkyl, optionally substituted by hydroxy or phenyl,  
phenyl[,] in which the phenyl rings being optionally  
substituted by one or two substituents independently selected  
from C<sub>1</sub>-C<sub>6</sub> alkyl, halogen, hydroxy, ~~C<sub>1</sub>-C<sub>6</sub>~~ C<sub>1</sub>-C<sub>6</sub> alkoxy or  
trifluoromethyl; or R<sub>2</sub> and R<sub>3</sub> taken with the carbon atom which  
they are linked to, form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring; [#]

~~R<sub>4</sub>, R<sub>5</sub>~~ R<sub>4</sub> and R<sub>5</sub> are[,] independently[,]  
hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl; or R<sub>4</sub> and R<sub>5</sub>, taken  
together with the nitrogen atom they are linked to, form a 5-7  
atom saturated heterocyclic ring;

X is ~~CH<sub>2</sub>~~ CH<sub>2</sub>, O, S; and  
~~dz~~ Z are hydrogen or taken together form a 5-7  
saturated or unsaturated carbocycle or a heterocycle Y and Z  
taken together form a dihydrobenzofuran, and/or;

~~or isomers~~ stereoisomers, mixtures, and  
pharmaceutically acceptable salts thereof.

10. (withdrawn and currently amended) The method  
according to claim 9, wherein the compound is selected from:

2-[ (3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-  
amino]-propanamide; 2-[ (3-Benzyl-2,3-dihydro-benzofuran-5-  
ylmethyl)-amino]-N-methyl-propanamide; 2-{3-[2-(2-Fluoro-  
benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-amino)-  
propanamide; <BR><BR><BR><BR> 2-{3-[2-(2-Fluoro-benzyl)]-  
2,3-dihydro-benzofuran-5-ylmethyl}-amino)-N-methyl-  
propanamide; 2-{3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-  
benzofuran-5-ylmethyl}-amino)-propanamide; <BR><BR><BR><BR>  
2-3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-  
amino)-N-methyl-propanamide; 2-[ (3-Phenethyl-2,3-dihydro-  
benzofuran-5-ylmethyl)-amino]-propanamide; 2-[ (3-Phenethyl-  
2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-  
propanamide; 2-3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-  
benzofuran-5-ylmethyl}-amino)-propanamide; 2-3-[2-(2-Fluoro-  
phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-N-  
methyl-propanamide; 2-3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-  
benzofuran-5-ylmethyl}-amino)-propanamide; <BR><BR><BR><BR>  
2-{3-[2-(3-Chloro-phenethyl)]-2,3-dihydro-benzofuran-5-  
ylmethyl}-amino)-propanamide; <BR><BR><BR><BR> and 2-{3-[2-  
(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl}-  
amino)-N-methyl-propanamide;

~~2-[ (3-Phenethyl-2,3-dihydro-benzopyran-6-ylmethyl)-amino]-  
propanamide; 2-[ (4-Phenethyl-2,3-dihydro-benzoxepin-7-  
ylmethyl)-amino]-propanamide; 2-[ (3-Benzyl-2,3-dihydro-~~

~~benzothiophen 5 ylmethyl) amino} propanamide; 2 {3 {2 (2~~  
~~Fluoro benzyl)} 2,3 dihydro benzothiophen 5 ylmethyl) amino)~~  
~~propanamide; 2 {3 {2 (3 Fluoro benzyl)} 2,3 dihydro~~  
~~benzothiophen 5 ylmethyl) amino} propanamide; 2 {(3 Phenethyl~~  
~~2,3 dihydro benzothiophen 5 ylmethyl) amino} propanamide; 2~~  
~~{3 {2 (2 Fluoro phenethyl)} 2,3 dihydro benzothiophen 5~~  
~~ylmethyl) amino} propanamide; 2 {3 {2 (3 Fluoro phenethyl)}~~  
~~2,3 dihydro benzothiophen 5 ylmethyl) amino} propanamide; and~~  
~~2 {3 {2 (3 Fluoro phenethyl)} 2,3 dihydro benzothiophen 5~~  
~~ylmethyl) amino} N methyl propanamide.~~

11. (withdrawn) The method according to claim 9,  
wherein the compound is selected from: 2-(4-Phenethyl-  
benzylamino)-propanamide; 2-(4-Benzylxybenzylamino)-  
propanamide; 2-(3-Benzylxybenzylamino)-propanamide; 2-(4-  
Benzylthiobenzylamino)-propanamide; 2-(4-Benzylxy-  
benzylamino)-3-N,N-dimethyl-butanamide; 2-[4-(2-  
Methoxybenzylxy)-benzylamino]-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[3-(2-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-2-methyl-propanamide; 2-[4-(2-  
Fluorobenzylxy)-benzylamino]-N-methyl-propanamide; 2-[3-(3-  
Fluorobenzylxy)-benzylamino]-propanamide; 2-[4-(3-

Fluorobenzylloxy)-benzylamino]-propanamide; 2-[4-(3-Methoxybenzylloxy)-benzylamino]-propanamide; 2-[4-(3-Cyanobenzylloxy)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-2-methyl-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-N-methyl-propanamide; 2-[4-(4-Fluorobenzylloxy)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-2-methyl-propanamide; 2-[4-(2-Chlorobenzylloxy)-benzylamino]-propanamide; 2-[4-(3-Chlorobenzylloxy)-benzylamino]-propanamide; 2-[4-(Benzylloxybenzylamino)-3-hydroxy-propanamide; 2-[4-(2-Fluorobenzylloxy)-benzylamino]-3-hydroxy-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(2-Benzylloxybenzylamino)-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Fluorobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(2-Chlorobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Cyanobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Cyanobenzylloxy)-benzylamino]-2-methyl-3-hydroxy-N-methyl-propanamide; 2-[4-(3-Chlorobenzylloxy)-phenylethylamino]-propanamide; 2-[4-(2-(3-Fluorophenyl)-ethyloxy)benzylamino]-propanamide; 2-[4-(2-(3-Fluorophenyl)-ethyl) benzylamino]-propanamide; 2-[N-(4-Benzylloxybenzyl)-N-methylamino]-propanamide; 2-[4-(3-

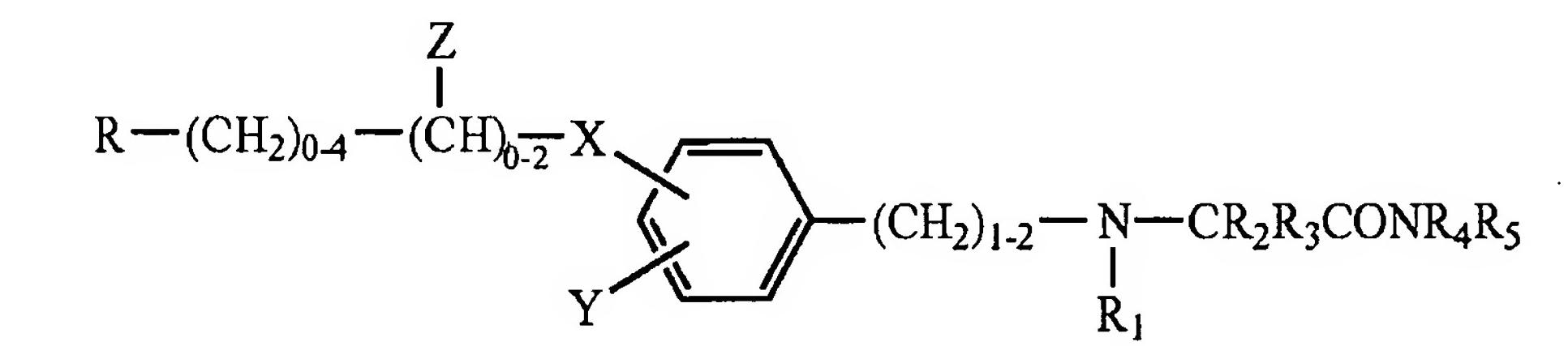
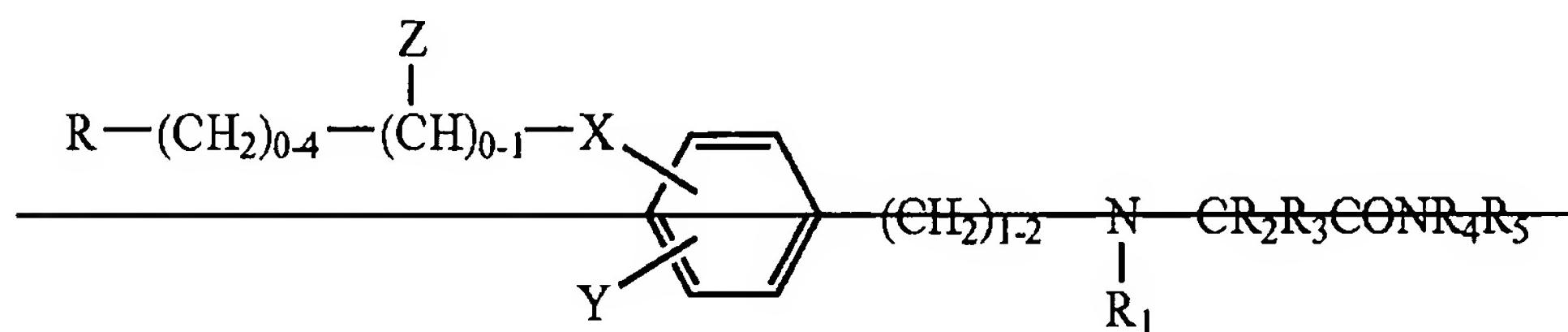
Chlorobenzylxyloxy)-phenylethyl]-amino}-propanamide; 2-[4-Benzylthiobenzylamino]-propanamide; 2-[4-(2-Fluorobenzylthio)-benzylamino]-propanamide; 2-[4-(3-Fluorobenzylthio)-benzylamino]-propanamide; 2-[4-(3-Phenylpropyloxy)-benzylamino]-propanamide; 2-[4-(4-Phenylbutyloxy)-benzylamino]-propanamide; 2-[4-(5-Phenylpentyloxy)-benzylamino]-propanamide; 2-(4-Benzylxybenzylamino)-3-phenyl-N-methyl-propanamide; 2-(4-Benzylxybenzylamino)-3-hydroxy-N-methyl-butanamide; 2-(4-Benzylxybenzylamino)-3-methyl-N-methyl-butanamide; 2-(4-Benzylxybenzylamino)-2-phenyl-acetamide; 2-[4-(2-Fluorobenzylxy)-benzylamino]-2-phenyl-acetamide; 2-[4-(3-Fluorobenzylxy)-benzylamino]-2-phenyl-acetamide; 2-[4-(2-Fluorobenzylxy)-benzyl-N-methylamino]-2-phenyl-acetamide; 2-[4-(3-Chlorobenzylxy)-benzylamino]-2-phenyl-acetamide; 2-[4-(2-Fluorobenzylxy)-benzylamino]-2-(2-fluorophenyl)-acetamide; 2-[4-(2-Fluorobenzylxy)-benzylamino]-2-(3-fluorophenyl)-acetamide; 2-[4-(3-Fluorobenzylxy)-benzylamino]-2-(2-fluorophenyl)-acetamide; 2-[4-(3-Fluorobenzylxy)-benzylamino]-2-(3-fluorophenyl)-acetamide; 2-[4-(3-Chlorobenzylxy)-benzylamino]-2-(3-fluorophenyl)-acetamide; and 2-(4-(2-Thienyloxy)-benzylamino)-propanamide.

12. (withdrawn) The method of claim 9, wherein said lower urinary tract disorders are overactive bladder (OAB), prostatitis and prostadynia, interstitial cystitis, benign prostatic hyperplasia and urinary incontinence as the consequence of the above pathologies.

13. (withdrawn and currently amended) The method of claim 9, wherein the  ~~$\alpha$ -aminoamides~~  $\alpha$ -aminoamides are (S)-(+)-2-[3-(2-fluorobenzylloxy)-benzylamino]-propanamide; (S)-(+)-2-[4-(2-~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~fluorobenzylloxy)-benzylamino]-propanamide, (S)-(+)-2-[4-(2-fluorobenzylloxy)-~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~benzylamino]-N-methyl-propanamide, (S)-(+)-2-[3-(3-fluorobenzylloxy)-~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~ ~~BR~~benzylamino]-propanamide, (S)-(+)-2-[4-(3-fluorobenzylloxy)-benzylamino]-propanamide, (R)-2-(4-benzyloxybenzylamino)-3-phenyl-N-methyl-propanamide; (2R,3S)-2-(4-Benzylbenzylamino)-3-hydroxy-N-methyl-butanamide; (S)-(+)-2-[4-(3-fluorobenzylloxy)-benzylamino]-N-methyl-propanamide, (S)-(+)-2-(4-phenethyl-benzylamino)-propanamide, (R)-(-)-2-(4-benzyloxy-benzylamino)-3-N,N-dimethyl-butanamide, (S)-(+)-2-(4-benzylthiobenzylamino)-propanamide, and 2-[ (3-phenethyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide and (2R/3'S,R)-2-[ (3-phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide, 2-[3-[2-

(2-fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl)-amino)-propanamide, 2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide, (2R/3'S,R)-2-{3-[2-(2-fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide, (2R/3'S,R)-2-{3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide.

14. **(currently amended)** An  $\alpha$ -aminoamide compound represented by the following formula (I):



wherein:

R is a furyl, thienyl, pyridyl ring or a phenyl ring, optionally substituted by one or two substituents independently selected from halogen, hydroxy, cyano, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl;

R<sub>1</sub> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl;  
R<sub>2</sub> and R<sub>3</sub> are independently selected from hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted by hydroxy or phenyl, phenyl in which the phenyl rings being optionally substituted by one or two substituents independently selected from C<sub>1</sub>-C<sub>6</sub> alkyl, halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl; or R<sub>2</sub> and R<sub>3</sub>, taken with the carbon atom which they are linked to, form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring;

R<sub>4</sub> and R<sub>5</sub> are independently hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl; or R<sub>4</sub> and R<sub>5</sub>, taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring;

X is CH<sub>2</sub>, O, or S; and

Y and Z taken together form a dihydrobenzofuran, a ~~dihydrobenzothiophen~~, a ~~dihydrobenzo~~ (thio) ~~pyran~~, or a ~~tetrahydrobenz~~ (thio) ~~oxepin~~ heterocycle and/or ~~isomers~~ stereoisomers, mixtures, and pharmaceutically acceptable salts thereof.

**15. (currently amended)** The compound according to claim 14, wherein said compound is selected from the group consisting of:

2-[ (3-Benzyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide; 2-[ (3-Benzyl-2,3-dihydro-benzofuran-5-

ylmethyl)-amino]-N-methyl-propanamide; 2-[3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; 2-[3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide; 2-[3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; 2-[3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl-propanamide; 2-[3-~~(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino)~~-propanamide; 2-[3-~~(3-Phenethyl-2,3-dihydro-benzofuran-5-ylmethyl)-amino)~~-propanamide; 2-[3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; 2-[3-[2-(2-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; 2-[3-[2-(3-Chloro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-propanamide; and 2-[3-[2-(3-Fluoro-phenethyl)]-2,3-dihydro-benzofuran-5-ylmethyl)-amino)-N-methyl-propanamide; ~~2-[3-~~(3-Phenethyl-2,3-dihydro-benzopyran-6-ylmethyl)-amino)~~-propanamide; 2-[4-~~(4-Phenethyl-2,3-dihydro-benzoxepin-7-ylmethyl)-amino)~~-propanamide; 2-[3-~~(3-Benzyl-2,3-dihydro-benzothiophen-5-ylmethyl)-amino)~~-propanamide; 2-[3-[2-(2-Fluoro-benzyl)]-2,3-dihydro-benzothiophen-5-ylmethyl)-amino)-propanamide; 2-[3-[2-(3-Fluoro-benzyl)]-2,3-dihydro-benzothiophen-5-ylmethyl)-amino)-propanamide; 2-[3-~~(3-Phenethyl-~~~~

~~2,3 dihydro benzothiophen 5 ylmethyl) amino} propanamide; 2-~~  
~~+3 [2 (2 Fluoro phenethyl)} 2,3 dihydro benzothiophen 5-~~  
~~ylmethyl) amino} propanamide; 2 (3 [2 (3 Fluoro phenethyl)}~~  
~~2,3 dihydro benzothiophen 5 ylmethyl) amino} propanamide; 2-~~  
~~+3 [2 (3 Fluoro phenethyl)} 2,3 dihydro benzothiophen 5-~~  
~~ylmethyl) amino} N methyl propanamide; and~~  
~~isomers stereoisomers, mixtures, or pharmaceutically~~  
~~acceptable salts thereof.~~

**16. (previously presented)** A pharmaceutical composition comprising a pharmaceutically acceptable excipient and, as an active agent, an effective amount of the  $\alpha$ -aminoamide compound according to claim 14.